(d) *Compressor configuration* means the basic classification unit of a manufacturer's product line and is comprised of compressor lines, models or series which are identical in all material respects with regard to the parameters listed in § 204.55–3.

(e) *Category* means a group of compressor configurations which are identical in all aspects with respect to the parameters listed in paragraph (c)(1)(i) of § 204.55–2.

(f) [Reserved]

(g) *Noise emission test* means a test conducted pursuant to the measurement methodology specified in § 204.54.

(h) *Inspection Criteria* means the rejection and acceptance numbers associated with a particular sampling plan.

(i) *Acceptable Quality Level (AQL)* means the maximum percentage of failing compressors that, for purposes of sampling inspection can be considered satisfactory as a process average.

(j) *Batch* means the collection of compressors of the same category or configuration, as designated by the Administrator in a test request, from which a batch sample is to be randomly drawn and inspected to determine conformance with the acceptability criteria.

(k) *Batch sample* means the collection of compressors that are drawn from a batch.

(l) *Batch sample size* means the number of compressors of the same category or configuration which is randomly drawn from the batch sample and which will receive emissions tests.

(m) *Test sample* means the collection of compressors from the same category or configuration which is randomly drawn from the batch sample and which will receive emissions tests.

(n) *Batch size* means the number, as designated by the Administrator in the test request, of compressors of the same category or configuration in a batch.

(o) *Test sample size* means the number of compressors of the same configuration in a test sample.

(p) *Acceptable of a batch* means that the number of non-complying compressors in the batch sample is less than or equal to the acceptance number as determined by the appropriate sampling plan.

(q) *Rejection of a batch* means that the number of non-complying compressors in the batch sample is greater than or equal to the rejection number as determined by the appropriate sampling plan.

(r) *Acceptance of a batch sequence* means that the number of rejected batches in the sequence is less than or equal to the sequence acceptable number as determined by the appropriate sampling plan.

(s) *Rejection of a batch sequence* means that the number of rejected batches in a sequence is greater than or equal to the sequence rejection number as determined by the appropriate sampling plan.

(t) *Shift* means the regular production work period for one group of workers.

(u) *Failing compressor* means that the measured noise emissions of the compressor, when measured in accordance with the applicable procedure, exceeds the applicable standard.

(v) *Acceptance of a compressor* means that the measured noise emissions of the compressor, when measured in accordance with the applicable procedure, conforms to the applicable standard.

(w) *Test Compressor* means a compressor used to demonstrate compliance with the applicable noise emissions standard.

(x) *Tampering* means those acts prohibited by section 10(a)(2) of the Act.

(Secs. 6 and 13, Noise Control Act, Pub. L. 92–574, 86 Stat. 1244; (42 U.S.C. 4912))

[41 FR 2172, Jan. 14, 1976, as amended at 42 FR 41635, Aug. 18, 1977; 47 FR 57711, Dec. 28, 1982]

§ 204.52 Portable air compressor noise emission standard.

(a) Effective January 1, 1978, portable air compressors with maximum rated capacity of less than or equal to 250 cubic feet per minute (cfm) shall not produce an average sound level in excess of 76 dBA when measured and evaluated according to the methodology provided by this regulation. Effective July 1, 1978, portable air compressors with maximum rated capacity greater than 250 cfm shall not produce an average sound level in excess of 76 dBA

when measured and evaluated according to the methodology provided by this regulation.

(b) *In-Use Standard.* [Reserved]

(c) *Low Noise Emission Product.* [Reserved]

§ 204.54 Test procedures.

(a) *General.* This section prescribes the conditions under which noise emission standard compliance Selective Enforcement Auditing or Testing by the Administrator must be conducted and the measurement procedures that must be used to measure the sound level and to calculate the average sound level of portable air compressors on which the test is conducted.

(b) *Test site description.* The location for measuring noise employed during noise compliance testing must consist of an open site above a hard reflecting plane. The reflecting plane must consist of a surface of sealed concrete or sealed asphalt and must extend one (1) meter beyond each microphone location. No reflecting surface, such as a building, signboard, hillside, etc., shall be located within 10 meters of a microphone location.

(c) *Measurement equipment.* The measurement equipment must be used during noise standard compliance testing and must consist of the following or its equivalent:

(1) A sound level meter and microphone system that conform to the Type I requirements of American National Standard (ANS) S1.4–1971, "Specification for Sound Level Meters," and to the requirements of the International Electrotechnical Commission (IEC) Publication No. 179, "Precision Sound Level Meters."

(2) A windscreen must be employed with the microphone during all measurements of portable air compressor noise when the wind speed exceeds 11 km/hr. The windscreen shall not affect the A-weighted sound levels from the portable air compressor in excess of ±0.5 dB.

(3) The entire acoustical instrumentation system including the microphone and cable shall be calibrated before each test series and confirmed afterward. A sound level calibrator accurate to within ±0.5 dB shall be used. A calibration of the instrumentation shall be performed at least annually using the methodology of sufficient precision and accuracy to determine compliance with ANS S1.4–1971 and IEC 179. This calibration shall consist, at a minimum, of an overall frequency response calibration and an attenuator (gain control) calibration plus a measurement of dynamic range and instrument noise floor.

(4) An anemometer or other device accurate to within ±10 percent shall be used to measure wind velocity.

(5) An indicator accurate to within ±2 percent shall be used to measure portable air compressor engine speed.

(6) A gauge accurate to within ±5 percent shall be used to measure portable compressor air pressure.

(7) A metering device accurate to within ±10 percent shall be used to measure the portable air compressor compressed air volumetric flow rate.

(8) A barometer for measuring atmospheric pressure accurate to within ±5 percent.

(9) A thermometer for measuring temperature accurate to within ±1 degree.

(d) *Portable air compressor operation.* The portable air compressor must be operated at the design full speed with the compressor on load, delivering its rated flow and output pressure, during noise emission standard compliance testing. The air discharge shall be provided with a resistive loading such that no significant pressure drop or throttling occurs across the compressor discharge valve. The air discharge shall be piped clear of the test area or fed into an effective silencer. The sound pressure level due to the air discharge shall be at least 10 dB below the sound pressure level generated by the portable air compressor.

(e) *Test conditions.* Noise standard compliance testing must be carried out under the following conditions:

(1) No rain or other precipitation,

(2) No wind above 19 km/hr,

(3) No observer located within 1 meter, in any direction, of any microphone location, nor between the test unit and any microphone,

(4) Portable air compressor sound levels, at each microphone location, 10 dB or greater than the background sound level,